GLASS PRODUCTS
OF THE

PITTSBURGH
PLATE GLASS COMPANY

PITTSBURGH MAKES 14 OUTSTANDING • •

The Pittsburgh Plate Glass Company is the largest manufacturer of flat glass products in the world. Included among Pittsburgh Glass Products are all the types commonly used for glazing and decoration, as well as many special glasses for special architectural purposes. This manufacturer, in more than half a century of glass making, has developed the most modern and efficient production methods and machinery, has integrated its facilities and operations so succesfully that it has established an unusually high standard of quality in all Pittsburgh Glass Products. This consistent high quality explains the enviable reputation won by Pittsburgh Plate Glass Company in the building trades.

What Pittsburgh's Exhaustive Research in Glass Making Means to the Architect

Since its founding, this company has been a pioneer in glass research and development. Its resources have been expended generously to improve old glass products and develop new ones, with the result that the architect of today has better glass to work with, and a far wider variety of glass products to assist him in creating buildings more beautiful, useful and durable than ever before.

Extensive Advertising Has Sold Clients on Pittsburgh Glass

This Company has consistently supported a comprehensive advertising program to acquaint clients and prospective clients of the architect with the qualities and possibilities of Pittsburgh Glass Products. The public familiarity with our glass and its excellence, results in a readier approval of architects' designs and specifications when Pittsburgh Glass is used.

Pittsburgh Service Is Available for Consultation, Planning and Installation

It has always been the endeavor of the Pittsburgh Plate Glass Company to co-operate to the fullest extent with the architectural profession. To this end, we maintain a special staff of architectural representatives, whose whole duty consists in rendering the architect every assistance possible in connection with the use of glass and paint. And our staff of store front experts is maintained to serve the architect in matters concerning the styling and installation of modern store fronts. We extend a cordial invitation to all architects to take advantage of these services at any time.

Prominent Installations and Repeat Orders Prove Excellence of Pittsburgh Glass Products

Pittsburgh Glass Products have been used in every type of building, for all glazing and decorative purposes, in outstanding installations throughout the country. A list of the finest modern edifices constructed in the United States would be, to a large extent, a list of buildings in which Pittsburgh Glass Products of some description have been used. And a roster of America's finest architects, standing for architectural achievement of the best kind, would practically be a roster of architects who have specified Pittsburgh Glass not once . . . but again and again and again. This preference for Pittsburgh Glass in the nation's outstanding buildings, this repeated specification of Pittsburgh Glass by architects whose reputations depend not only on their creative genius but also their judgment of materials, is the best proof that could be had of the excellence and satisfactory performance of Pittsburgh Glass.

OTHER PRODUCTS OF THE COMPANY

Pittsburgh Plate Glass Company, in addition to the products described in this catalogue, also manufactures paints and varnishes of all kinds (See section in Sweet's on Pittsburgh Paints); Pittco Store Front Metal (See section in Sweet's on Pittco Store Front Metal); and serves as distributing agent for Carrara Structural Glass and P-C Glass Blocks which are manufactured by the Pittsburgh Corning Corporation (See Pittsburgh Corning Corporation's section in Sweet's on Carrara Structural Glass and on P-C Glass Blocks).

Paint • PITTSBURGH • Glass
PLATE GLASS COMPANY

General Offices GRANT BUILDING • PITTSBURGH, PA.

• *For list of warehouses and map showing warehouses and factories see back cover*

GLASS PRODUCTS

GUIDE-LIST AND INDEX OF PITTSBURGH GLASS PRODUCTS

For your convenience, we give below a check list and index of Pittsburgh Glass Products in the form of a chart. With this table before you, you will find it a simple matter to compare the various glass products listed, and select those upon which you desire further information. Such further information will be found on the page of this catalogue indicated in the last column of the chart.

PRODUCT	QUALITIES	THICKNESSES	MAX. SIZES	WEIGHTS	STRENGTH	COLORS	FINISH	PAGE
Polished Plate Glass	Silvering Mirror Glazing Glazing	1/8" 13/64" 1/4"	1/8" 72x123 13/64" 123x216 1/4" 160x220 150x260	1/8" 1.75 lbs. [1] 13/64" 2.67 lbs. [1] 1/4" 3.29 lbs. [1]	Tension 6500 lbs. [1] Compression 36000 lbs. [1] Modulus Elasticity 10,000,000	Clear	Ground and Polished	4
Vista Plate Glass	Silvering Mirror Glazing Glazing	6/64" to 9/64"	72x123 (Sizes over 7 [1] not recommended for exterior glazing)	1.75 lbs. [1]	In direct proportion to the square of the thickness	Clear	Ground and Polished	6
Heavy Plate Glass	Commercial Selected	3/8" 1/2" 5/8" 3/4" 7/8" 1" 1-1/4"	3/8" to 1/2" 72x160 5/8" to 1" 72x130 1-1/4" 70x130	3/8" 4.93 lbs. [1] 1/2" 6.58 lbs. [1] 5/8" 8.22 lbs. [1] 3/4" 9.67 lbs. [1] 7/8" 11.52 lbs. [1] 1" 13.16 lbs. [1] 1 1/4" 16.45 lbs. [1]	In direct proportion to the square of the thickness	Clear	Ground and Polished	6
Blue Plate Glass	Selected only	13/64"	72x123	2.67 lbs. [1]	Same as plate glass	Blue	Ground and Polished	7
Flesh Tinted Plate Glass	Selected only	13/64"	72x123	2.67 lbs. [1]	Same as plate glass	Flesh Tinted	Ground and Polished	7
Crystalex Plate Glass	Silvering Glazing	7/64" 1/4"	123x216	7/64" 1.44 lbs. [1] 1/4" 3.25 lbs. [1]	Same as plate glass	Water White	Ground and Polished	7
Solex Plate Glass	Glazing only	1/4"	72x123	3.29 lbs. [1]	Same as plate glass	Bluish Green	Ground and Polished	8
X-Ray Lead Glass	Glazing only	5.35 to 7.35 m/m	40x72	5 1/2 lbs. [1]	Approximately 2/3 as strong as plate glass of equal thickness	Golden Yellow	Ground and Polished	9
Herculite	Same as glass before tempering	Same as glass before tempering	48x108	Same as glass before tempering	Approximately 4 times that of glass of equal thickness which has not been tempered	Same as glass before tempering	Same as glass before tempering	8
Carrara Structural Glass (Mfd. by Pittsburgh Corning Corp. Dist. by Pgh. Plate Glass Co.)	Selected only	Standard colors 11/32" - 7/16" - 3/4" - 7/8" - 1-1/4" Black also in 1/4"	72x130	1/4" 3.29 lbs. [1] 11/32" 4.5 lbs. [1] 7/16" 5.76 lbs. [1] 3/4" 9.87 lbs. [1] 7/8" 11.51 lbs. [1] 1 1/4" 16.45 lbs. [1]	Approximately same as regular plate glass	Jade, Ivory, Gray, White, Black, Wine, Rembrandt Blue, Orange and Forest Green (All Opaque)	Ground and Polished one side. 7/8" and 1 1/4" also polished both sides	See Pittsburgh Corning catalogue on *Carrara* in Sweet's
Multiplate Bullet-Resisting Plate Glass	Commercial	1/2" 3/4" 7/8" 1" 1-1/8" 2"	45x84	1/2" 6.91 lbs. [1] 3/4" 10.30 lbs. [1] 7/8" 11.90 lbs. [1] 1" 13.57 lbs. [1] 1 1/8" 15.23 lbs. [1] 2" 27.11 lbs. [1]	For recommendations of protection against various firearms, see Page 9	Clear	Ground and Polished Plate Glass laminated	9
Pittsburgh Mirrors Plain Copper-Back Structural	Silvering Mirror Glazing Glazing	Fabricated from any thickness of glass	Plain and Structural—Up to maximum glass size Copper-Backed 70x144	Approximately same as plate glass	Approximately same as plate glass	Plain, Blue, Flesh, Water White, Blue-Green	Silver, gold or gunmetal backing on any color glass	10
Tapestry Glass	Glazing	3/16" 1/4"	60x144	3/16" 2.87 lbs. [1] 1/4" 3.68 lbs. [1]	Equal to or greater than that of regular plate glass	Translucent Semi-Opaque	Plain 3/16" and 1/4" Polished 1/4" only	10
Pennvernon Window Glass	AA-A-B Greenhouse Picture Heavy Sheet	Single Strength .087 - .095 Double Strength .118 - .133 Heavy Sheet 3/16" - .187 to .200 7/32" - .212 to .225	Heavy Sheet 3/16" up to 50 [1] 7/32" up to 60 [1]	Picture 16 oz. [1] S.S. 19 oz. [1] D.S. 26 oz. [1] 3/16" 40 oz. [1] 7/32" 45 oz. [1]	Same as plate glass of equal thickness	Clear	Fire-finished	11
No. 1086 Document Glass	Glazing only	1/4"	40x72	5 1/2" lbs. [1]	Approximately 2/3 as strong as plate glass of equal thickness	Canary Yellow	Ground and Polished	9

POLISHED PLATE GLASS

The Aristocrat of the Transparent Flat Glass Family

Polished Plate Glass is ground and polished, mechanically, to a true, flat surface and a perfect brilliance and reflectivity of finish. It is the finest material available for exterior and interior glazing and should be used wherever clarity of vision, beauty and dignity are desired. Objects viewed through polished plate glass, or reflected from it, are undistorted and perfectly natural in shape, form and outline. It imparts to buildings in which it is used a brilliance and luster, a distinction and charm, that enhances their appearance and adds immeasurably to their rental and sales value.

Physical Characteristics

QUALITIES	THICKNESSES	MAX. SIZES	WEIGHTS
Silvering Mirror Glazing Glazing	1/8" 13/64" 1/4"	1/8" 72x123 13/64" 123x216 1/4" 160x220 150x260	1/8" 1.75 lbs. [ ] 13/64" 2.67 lbs. [ ] 1/4" 3.29 lbs. [ ]

STRENGTH	COLORS	FINISH
Tension 6500 lbs. [ ] Compression 36000 lbs. [ ] Modulus Elasticity 10,000,000	Clear	Ground and Polished

UNITED STATES GOVERNMENT

CLASSIFICATION

Polished Plate Glass: silvering quality, glazing quality.

DEFINITIONS OF THE GENERAL CLASSES OF POLISHED PLATE GLASS

Plate Glass—Transparent, flat, relatively thin glass having plane polished surfaces and showing no distortion of vision when viewing objects through it at any angle.

Plate Glass is made at present by casting and rolling large sheets periodically or by rolling a continuous sheet. The sheets are then ground and polished.

DETAILED SPECIFICATIONS OF POLISHED PLATE GLASS

General Principles Involved in Grading Glass—All flat glass contains some imperfections and the principle employed in grading is to exclude all defects that would be objectionable in a given grade. This is difficult to do since there are no sharp lines of demarcation between grades and experienced inspectors will differ in judgment as the quality of the glass approaches the limits of the grades, small lights must be quite free from imperfections, as compared with larger ones, and the center of any sheet should be clear, whereas the edges may contain more pronounced defects.

Method of Examination—The method of examination is described in these specifications in order to make the results more uniform, and defines the condition under which glass should be examined because the distance from the glass, the angle between the glass and the line of sight, and the intensity of light all affect the visibility of imperfections.

These specifications should be interpreted by examining the glass in the following manner, with reference to the definitions of defects listed in the glossary:

The glass should be examined when placed in a position similar to that of a glazed light with the observer's eye on a level with the center of the sheet, and looking through the glass from a distance of about 36 in. into the light from a clear sky without any sun or any close background.

The visibility of waves, lines or cords depends chiefly upon the angle of observation, and the intensity of these defects can be classified on this basis. The values given for angles are the angles the line of sight makes with the sheet of glass when in a vertical position. Slight movement of the head horizontally through an angle of two or three degrees will make waves or lines more perceptible.

Acceptance or Rejection—Acceptance or rejection of a shipment or delivery shall be based on an examination of the following quantities:

For orders of 100 lights or less, all shall be examined; for orders of 101 to 500 lights, at least 50% shall be examined, for orders of 501 or more lights, at least 25% shall be examined. Boxes shall be selected from the shipment at random.

If not more than 10% of the lights examined are below quality, the shipment shall be accepted provided the lights below the specified grade are not distinctly below the upper limits of the next lower grade.

If, however, an entire shipment of 500 lights or more is examined, not more than 5% may be below quality.

For list of warehouses and map showing warehouses and factories see back cover

SPECIFICATIONS FOR PLATE GLASS FOR GLAZING PURPOSES

SPECIFICATIONS FOR POLISHED PLATE GLASS

Sizes and Thicknesses—The standard of thicknesses of plate glass shall be 1/8, 3/16, 1/4, 3/8, 1/2, 5/8, 3/4, 7/8, 1 and 1 1/4 in. Sheets are available 1/4 in. thick in sizes having a maximum area of 250 sq. ft. Glass of 1/4 in. thickness may be furnished having almost any desired dimension under the following maximums: 120x280 in., 144x260 in., 160x240 in.

Tolerance in Thicknesses—The maximum and minimum thicknesses allowed shall not be more than given thickness plus or minus one-half the difference between the standard thicknesses. The general variation in thickness should not be more than 1/32 in. for individual lights under 10 square feet in thicknesses up to 1/4 in. The variation in lights over 1/4 in. in thickness should not exceed one-half the total tolerance for that thickness.

Polished plate glass 1/4, 1/8 and 3/16 in. thick is carried in stock in the larger cities.

Tolerance in Dimensions—Variation from dimensions ordered shall not be more than 1/32 in. per 1/8 in. thickness.

Grades—Plate glass shall be furnished for glazing purposes in one of two grades as specified. These grades will be known as silvering and glazing qualities.

Silvering quality is invariably used where the hghest standard of glazing is required and imperfections are discoverable only in close inspection. This quality is rarely sold for glazing purposes in sizes over 20 sq. ft. Glazing quality represents the usual selection of plate glass supplied when quality is not otherwise definitely specified.

As allowable tolerances in quality must vary considerably with size of sheet required, different specifications will apply in each of the following four divisions according to size:

Division I. Sheets up to and including 10 sq. ft. in area.

Division II. Sheets having an area greater than 10 sq. ft. but not greater than 25 sq. ft.

Division III. Sheets having an area greater than 25 sq. ft. but not greater than 75 sq. ft.

Division IV. Sheets having an area greater than 75 ft.

Division I. (Sizes Up to and Including 10 Sq. Ft.)—*Silvering Quality*—This glass shall not contain any major defects. The central area of this glass may contain only well scattered seeds. Ream, skim, short finish, and scratches which cannot be removed by buffing, are not permissible. The edges may contain coarse seeds, but none shall be larger than 1/32 in. in diameter.

Glazing Quality—The central area of this quality may contain numerous scattered seed, including an occasional coarse seed, but no heavy seed. Small bubbles may occur on the edge. Stones, large bubbles, skim, ream, or long or heavy scratches are not permissible. Faint strings in the corners or upper edge of the light are permissible. The polish shall not show areas of short finish.

Division II. (Sizes from 10 Sq. Ft. to 25 Sq. Ft., Inclusive)—*Silvering Quality*—The central area of this quality may contain more numerous fine seed than the small sizes and an occasional coarse seed. The edges may contain occasional small bubbles and fine strings. No heavy defects or scratches which cannot be removed by buffing are permissible. The polish must be good and free from visible short finish.

Glazing Quality—The central area may contain small bubbles and fine strings or ream which do not give visible distortion when looking straight through the glass, but no long or heavy scratches. The edges may contain bubbles over 3/32 in., visible scratches shorter than 10 in., small areas of ream, strings, and small stones not larger than 1/32 in., but these defects should not be grouped nor interfere with the vision. The polish over the central area should be good, but patches of light short finish may be present about the edges.

General—None of the above grades or sizes may contain any heavy or long lines, streaks of ream, any bubbles, larger than 1/8 in., visible poor polish, open bubbles, areas of skim, or stones over 1/32 in. in diameter.

Division III. (Sizes from 25 Sq. Ft. to 75 Sq. Ft.)—*Glazing Quality*—Lights of this size may contain numerous visible and larger imperfections not allowed in the smaller lights. But these must not be grouped or so prominent that they noticeably interfere with the vision. The central area of the plate shall be free from these larger defects.

The sheets may contain seed of any size, but not heavy seed except in relatively small patches on the outer border of the sheet, occasional bubbles up to 1/8 in. in the center and up to 3/16 in. on the borders, strings, ream and skim in very limited areas if not causing a deformation of objects viewed through the plate, occasional scratches and small stones under 1/16 in.

Heavy ream, heavy cord, bubbles larger than 3/16 in. in diameter, stones larger than 1/16 in. in diameter, large fire cracks, areas of unpolished glass, easily visible poor polish, large open bubbles, or sand holes, are not permitted. The large defects should be confined to the upper edge and upper corners of the sheet, the lower and central areas to be relatively free from major defects.

Division IV. (Sizes Greater than 75 Sq. Ft.)—Sheets larger than 75 sq. ft. may contain defects of almost any kind except that they must not show large areas of heavy seed or bubbles nor have any defects which will cause spontaneous breakage, such as skim or large stones (1/8 in. in diameter) or show any areas of unpolished glass.

GLOSSARY OF TERMS USED IN THESE SPECIFICATIONS

The following terms shall be used in specifications:

Plate Glass—Seeds, short finish, skim, strings, scratches, bubbles, open bubbles, ream, stones, fire cracks, sand holes.

Bubbles—Gas inclusions in any rolled glass. These inclusions are practically always spherical and brilliant in appearance. The term applies to all such inclusions larger than 1/32 in. in diameter. The term small bubbles (commonly known as boil) refers to sizes between 1/32 in. and 3/32 in.

Seeds—Minute bubbles less than 1/32 in. in diameter. Fine seeds are visible only on close inspection, usully appearing as small specks and are an inherent defect in the best quality of plate glass. Seed about 1/64 in. to 1/32 in. in diameter are usually considered as coarse seed.

Open Bubbles—Bubbles which have been broken into by grinding, leaving a hemispherical hole in the glass surface.

Skim—Streaks of dense seed with accompanying small bubbles.

Strings—Wavy, transparent lines appearing as though a thread of glass had been incorporated into the sheet.

Cords—Heavy strings incorporated in the sheet, occurring without any regularity of direction, and appearing to be of considerable thickness rather than on the surface.

Ream—An area of unhomogeneous glass incorporated in the sheet producing a wavy appearance.

Scratches—Any marking or tearing of the surface appearing as though it had been done by either a sharp or rough instrument. Scratches occur on sheet glass in all degrees from various accidental causes.

Short Finish—Insufficient polish or lack of brilliancy; improperly finished surface which has the appearance of being slightly pitted and wavy when the surface is viewed in reflected light. These indentations, which are slight, have a polished rather than a ground surface, but the general effect is a slight dulling of the surface. Poor polish is usually caused by improper grinding.

Stones—Any opaque or partially melted particle of rock, clay or batch ingredient imbedded in the glass.

Fire Cracks—Small cracks penetrating the surface of the sheet. Usually in the shape of short-hooked crescents. Caused by sudden heating or chilling of the surface.

Sand Holes—Rough spots on the polished surface produced during coarse grinding which fine grinding did not later remove; due, to some extent, to coarse grains of grinding sand becoming mixed with finer grades.

Central Area of Sheet—This term is used with slightly different interpretation with reference to plate or window glass. In plate glass the central area is considered to form an oval or circle centered on the sheet whose axes or diameters do not exceed 80% of the over-all dimension. This allows a fairly large area at the corners, which may have imperfections not allowed in the central area.

For complete Architectural Specifications see page Three

VISTA PLATE GLASS

Thin Plate Glass for General Glazing Purposes

Vista Plate Glass was developed to meet a definite need in the building industry . . . the need for a fine plate glass which could be used for general glazing, but which would be low enough in cost to warrant wide use, and which could be glazed in standard sash with standard sash weights.

Has Advantages of Heavier Plate Glass

Vista Plate Glass meets these requirements. It has all the visual advantages of heavier plate glass. High polish on both surfaces, with the accompanying intrinsic beauty of brilliant luster and reflection. Absolute freedom from distorting defects, with consequent ability to transmit with perfect clarity all objects seen through it. And sufficient strength and durability to assure permanence when it is used in residences or other buildings.

Increases Resale Value of Houses

The building glazed with Vista Plate has a greater resale value which more than offsets the slight extra cost of Vista Plate over ordinary window glass. Vista Plate is glazed in standard 1⅜ in. sash with ordinary sash weights.

Physical Characteristics

QUALITIES	THICKNESSES	MAX. SIZES	WEIGHTS
Silvering Mirror Glazing Glazing	6/64″ to 9/64″	72x123 (Sizes over 7 [ ] not recommended for exterior glazing)	1.75 lbs. [ ]

STRENGTH	COLORS	FINISH
In direct proportion to the square of the thickness	Clear	Ground and Polished

HEAVY PLATE GLASS

A Practical Decorative Medium for a Hundred Uses

Heavy Plate Glass is a material that the architect will find particularly helpful in modern design and decoration. Only the architect's imagination limits the possibilities for the effective use of this striking and diffusing material.

Clear, Brilliant, Impervious, Strong

It is clear and affords excellent vision. It has brilliant and mirror-like smoothness of surface which only fine plate glass can offer. It is impervious to moisture, weather, cleaning chemicals, pencil marks and other disfiguring agents. It is easily cleaned. And above all, while possessing the strength that protects and endures, it also lends to the furniture or fixtures in which it is the dominant material a beauty, dignity and modern touch which perhaps no other medium can offer.

Specific Uses

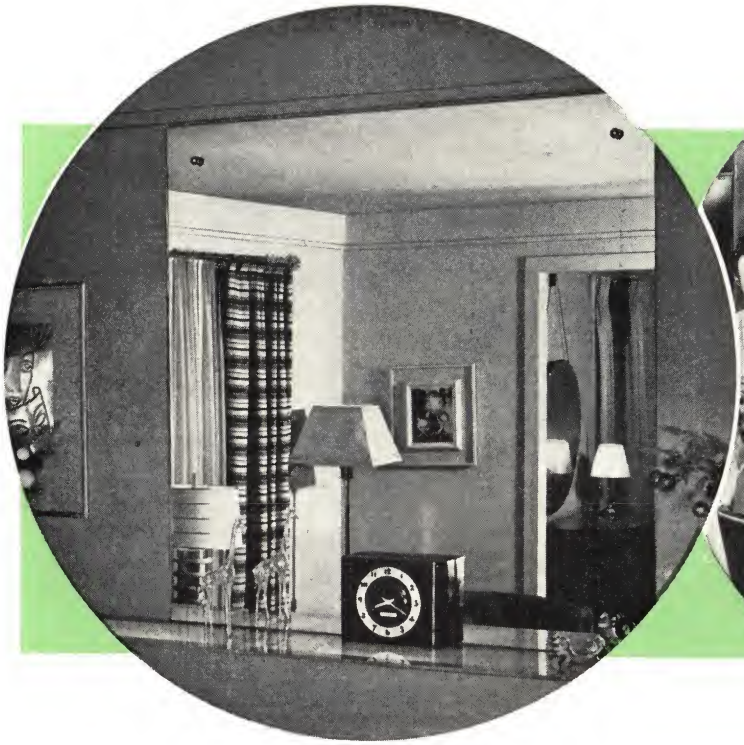
A few of the uses in which Heavy Plate Glass has proved eminently successful are: Book Shelves, Decorative Panels and Partitions, Shower Bath Enclosures, Bank Fixtures (Deal Plates), Glass Roofs, Glass Flooring, Porte Cochere Roofs, Skylights, Semi-enclosed Telephone Booths, Theater Marquises, Valances, Lighting Fixtures, Radio Acoustic Chambers, Refrigerator Doors, Show Cases, Soda Fountain Counters, Aquariums, Aquatic Tanks, Bulkheads, Counter Tops, Table Tops, Modernistic Furniture, Shelves and Mausoleums.

Physical Characteristics

QUALITIES	THICKNESSES	MAX. SIZES	WEIGHTS
Commercial Selected	3/8″ 1/2″ 5/8″ 3/4″ 7/8″ 1″ 1¼″	3/8″ to 1/2″ 72x160 5/8″ to 1″ 72x130 1¼″ 70x130	3/8″ 4.93 lbs. [ ] 1/2″ 6.58 lbs. [ ] 5/8″ 8.22 lbs. [ ] 3/4″ 9.67 lbs. [ ] 7/8″ 11.52 lbs. [ ] 1″ 13.16 lbs. [ ] 1¼″ 16.45 lbs. [ ]

STRENGTH	COLORS	FINISH
In direct proportion to the square of the thickness	Clear	Ground and Polished

For list of warehouses and map showing warehouses and factories see back cover



BLUE AND FLESH TINTED PLATE GLASS

For Striking Decorative Effects

Flesh Tinted Plate Glass

Flesh Tinted Plate Glass is a medium becoming increasingly popular with architects to assist in obtaining decorative effects. This glass approximates in color the shading commonly found in the skin of a Caucasian person. The color is slight in surface section, considerably stronger in transverse section. Used in mirrors, Flesh Tinted Plate Glass produces reflections which minimize blues and violets and emphasize flesh colors, thus offering flattering images.

Blue Plate Glass

Blue Plate Glass, another popular product of the PITTSBURGH PLATE GLASS COMPANY, is a glass of rich blue color, ideal for decorative use in modern building. Like Flesh Tinted Plate Glass, this Blue Plate Glass is extraordinarily attractive when fabricated into mirrors.

Specific Uses

Flesh Tinted Mirrors or Blue Mirrors can be used with great success in home decoration to add color, warmth and sparkle to all types of rooms. They also are exceedingly ornamental in bars, stores, and public and commercial buildings of all sorts. Both types of Plate Glass also serve very well as unusual table tops, desk tops, book shelves, sill covers, etc.

Physical Characteristics

QUALITIES	THICKNESSES	MAX. SIZES	WEIGHTS
Selected only	$\frac{13}{64}$"	72x123	2.67 lbs. [|]

STRENGTH	COLORS	FINISH
Tension 6500 lbs. [|] Comp. 36,000 lbs. [|] Modulus Elasticity 10,000,000	Blue and Flesh	Ground and Polished

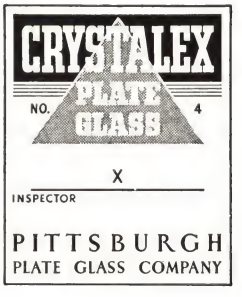
CRYSTALEX PLATE GLASS

For Faithful Transmission of Natural Colors

Crystalex Plate Glass was developed primarily for use in multiple-glazing, as in refrigerator cases, and in double-glazing of windows for purposes of insulation and air conditioning. This is the only type of glass so far developed which does not effloresce or "bloom" when hermetically sealed with an air space between two sheets.

Water White Glass, Colorless in Surface and Transverse Sections

Crystalex Plate Glass is a true water white glass, colorless both in surface and in transverse section. Since its transmission value for all the colors of the spectrum is very nearly uniform (88% to 92%), its transmission of the violet and blue light rays is much higher than that of ordinary plate glass. And as a result it is able to transmit very faithfully the natural colors of objects seen through it without changing the relative intensities of the colors, no matter how delicate the differentiation of tone and shade may be.



Specific Uses

Architects will find this glass excellent also for use in display cases of all kinds, and in mirrors where it is desired to obtain as nearly true reflections as possible, such as in dress shop and beauty shop interiors, etc.

Physical Characteristics

QUALITIES	THICKNESSES	MAX. SIZES	WEIGHTS
Silvering Glazing	$\frac{7}{64}$" $\frac{1}{4}$"	123x216	$\frac{7}{64}$" 1.44 lbs. [|] $\frac{1}{4}$" 3.25 lbs. [|]

STRENGTH	COLORS	FINISH
Tension 6500 lbs. [|] Comp. 36,000 lbs. [|] Modulus Elasticity 10,000,000	Water White	Ground and Polished

For complete Architectural Specifications see page Three

SOLEX PLATE GLASS

A Heat Absorbing Plate Glass

Solex is made by a special process which gives it the valuable quality of absorbing heat without interfering with the transmission of visible light. Thus, while it admits 70% to 75% of the sun's total light, it transmits less than 43% of the total solar heat.

Greatly Reduces Sunheat in Rooms

When windows, skylights, etc., of a building are glazed with Solex, the solar heat entering that building through such openings is greatly reduced. Persons sitting adjacent to Solex windows are far more comfortable, and the glare resulting from high light intensity is considerably lessened.

Specific Uses

Solex is well fitted for a wide variety of uses. It may be employed to advantage in southern and western exposures of all types of buildings, whether schools, residences, factories, hotels or office buildings, and will result when so used in greater bodily and visual comfort for building occupants. And when used to glaze textile factories or warehouses, Solex prevents fading and bleaching of delicate colored fabrics from exposure to sunlight.

Physical Characteristics

QUALITIES	THICKNESSES	MAX. SIZES	WEIGHTS
Glazing only	¼"	72x123	3.29 lbs. [|]

STRENGTH	COLORS	FINISH
Tension 6,500 lbs. [|] Comp. 36,000 lbs. [|] Modulus Elasticity 10,000,000	Bluish Green	Ground and Polished

HERCULITE PLATE GLASS

A Tempered Plate Glass of Great Strength and Shock Resistance

Herculite is polished plate glass which has been specially processed by heat and chilling. It will support a weight four times as great as ordinary plate glass. It will bend four times as far without breaking. Its resistance to impact is 7 to 8 times greater.

Unaffected by Varying Surface Temperatures

Herculite is not affected by varying surface temperatures, being able to stand, without breaking, a temperature of 650 degrees F. on one surface, while the other is at ordinary atmospheric temperature. It resists shocks and impacts as well at 15 degrees below zero F. as at ordinary temperatures.

Shattering Qualities

When Herculite, under terrific impact, *does* shatter, it does not break into sharp fragments like ordinary glass, but disintegrates into innumerable small fragments which are comparatively blunt edged.

Specific Uses

Obviously, the uses of Herculite are almost limitless where strength and safety are important considerations. It proves extraordinarily satisfactory when used for aquariums, cell doors, deck lights, doors, fire screens, flooring, gas cooker doors, glass bottom boats, gauge guards, kitchen equipment, laboratory equipment, partitions, portlights, road traffic signs, shelves, show cases, sight glasses, table and dresser tops, underwater lighting, etc.

Physical Characteristics

QUALITIES	THICKNESSES	MAX. SIZES	WEIGHTS
Same as glass before tempering	Same as glass before tempering	48x108	Same as glass before tempering

STRENGTH	COLORS	FINISH
Approximately 4 times that of glass of equal thickness which has not been tempered	Same as glass before tempering	Same as glass before tempering

For list of warehouses and map showing warehouses and factories see back cover

X-RAY LEAD GLASS

The PITTSBURGH PLATE GLASS COMPANY now offers a domestic source of supply for X-ray Lead Glass which meets in every respect the requirements of various governmental departments.

X-ray Lead Glass was developed primarily to protect operators and their assistants against continuous exposure to X-rays. While affording protection, the glass also allows clear vision of the X-ray apparatus and patient. X-ray Lead Glass may be used both for interior and exterior glazing.

Protection

Protection against very high X-ray intensities may be secured by the lamination of several lights. The single thickness gives protection against X-ray tubes operating under an impressed voltage of 100 k.w.

Lead Coefficient

The actual glass thickness multiplied by the "lead coefficient" gives the equivalent sheet lead thickness. The "lead coefficient" of Pittsburgh X-ray Lead Glass is at least .30.

NO. 1086 DOCUMENT GLASS

No. 1086 Document Glass is a clear canary yellow plate glass developed for the preservation of manuscripts, valuable documents, stamps, and old printed matter of every description. Special ingredients in the glass minimize the harmful effects of those light rays which cause paper and ink to fade and discolor. Architects will find No. 1086 Document Glass especially valuable for designing museums, libraries and buildings of similar types where valuable documents are displayed, and where the display cases form an integral part of the building.

Physical Characteristics

QUALITIES	THICKNESSES	MAX. SIZES	WEIGHTS
Glazing only	X-Ray 5.35 to 7.35 m/m Document—¼″	40x72	5½ lbs. [ ]

STRENGTH	COLORS	FINISH
Approximately ⅔ as strong as plate glass of equal thickness	X-Ray Golden Yellow Document Canary Yellow	Ground and Polished

SAFETY GLASS

Multiplate Bullet-Resisting Glass

This glass is a laminated plate glass developed by the PITTSBURGH PLATE GLASS COMPANY for use where special protection is required, usually protection against firearms. In a bank, for example, Multiplate protects employees as well as funds and permits them to sound alarms and use defensive arms without fear of injury, in the event of a hold-up or attempted robbery.

Protective Qualities of Various Thicknesses

1⅛ in. Multiplate, called Super-Multiplate and the thickness most commonly used, will withstand without penetration numerous scattered shots from a Thompson Sub-machine gun, and from 4 to 10 shots from the common sidearms, such as .22, .32, .38, and .45 caliber revolvers, with the exception of the new Smith and Wesson .357 Magnum Revolver which is the hardest-hitting sidearm so far developed. For protection against this weapon, 1½ in. Multiplate, called Hi-Resist Multiplate, has been developed and will successfully resist scattered shots from it. Against scattered shots from a thirty-thirty rifle, we recommend 2 in. Multiplate, called Hi-Power Multiplate, as effective protection. This glass will also effectively withstand one direct shot from the terrifically powerful 30-06 Army Springfield, or several scattered shots fired from an angle.

Regularly Checked and Tested by Underwriters Laboratories

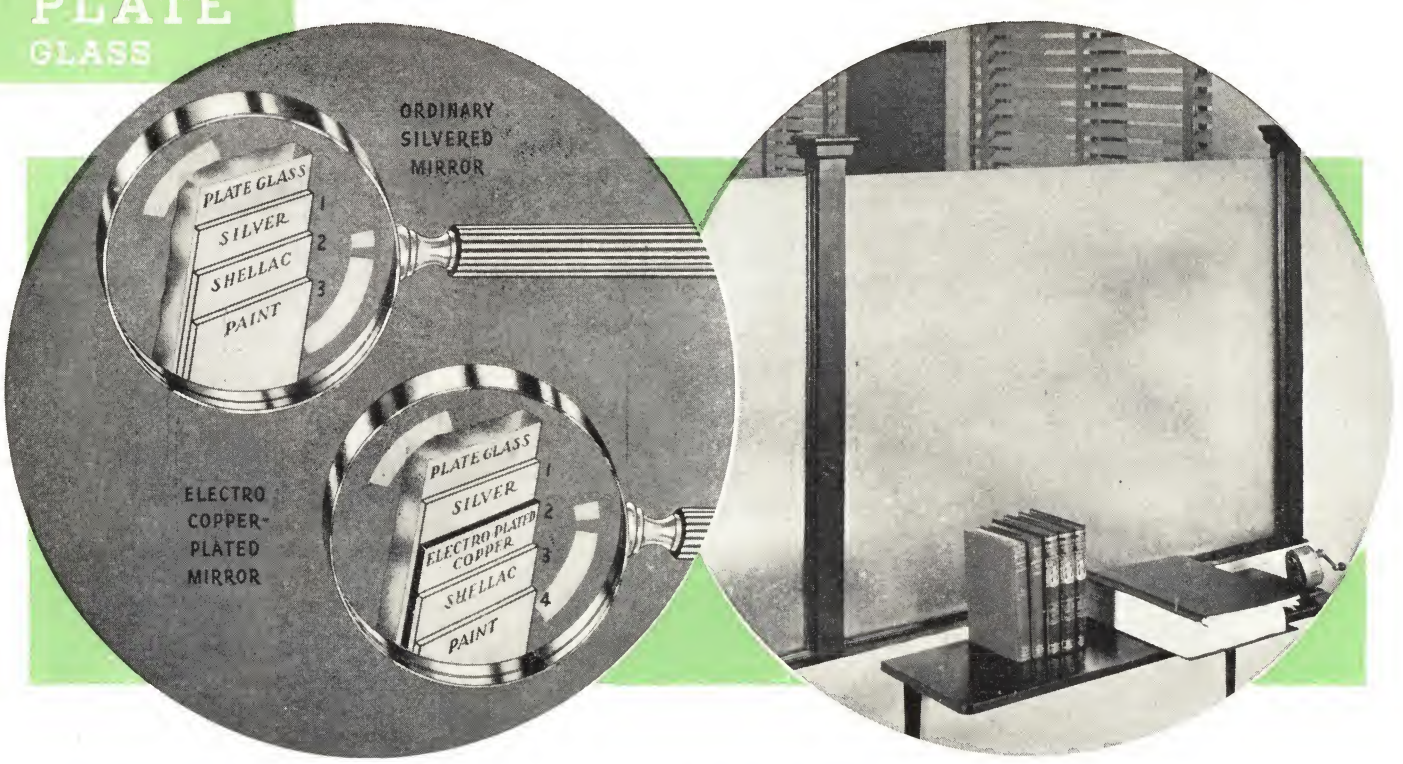
The majority of banks in the United States using Bullet-Resisting Glass in connection with other safety devices, standardize on Multiplate. This glass offers to architects a bullet-resisting medium which is checked and tested regularly by the Underwriters' Laboratories and listed by them.

Physical Characteristics

QUALITIES	THICKNESSES	MAX. SIZES	WEIGHTS
Commercial	½″ ¾″ ⅞″ 1″ 1⅛″ 2″	45x84	½″ 6.91 lbs. [ ] ¾″ 10.30 lbs. [ ] ⅞″ 11.90 lbs. [ ] 1″ 13.57 lbs. [ ] 1⅛″ 15.23 lbs. [ ] 2″ 27.11 lbs. [ ]

STRENGTH	COLORS	FINISH
For recommendations of protection against various firearms, see above	Clear	Ground and Polished Plate Glass laminated

For complete Architectural Specifications see page Three



PITTSBURGH MIRRORS

For Every Structural and Decorative Purpose

Pittsburgh Mirrors include mirrors for every architectural need. Whether used structurally in a building, or as purely decorative media, Pittsburgh Mirrors are consistently of high quality and afford superior reflectivity. Especially recommended are Pittsburgh Copper Back Mirrors, which are specially protected against deterioration.

Treated to Special Process

Pittsburgh Copper Back Mirrors receive, during manufacture, a coating of copper, electro-plated over a heavy film of silver . . . and this copper backing forms an efficient protection against the usual effects of varying climatic and atmospheric conditions. Since these specially protected mirrors retain their beauty and usefulness year after year, their use practically eliminates the need for replacements.

Colors and Types Available

All Pittsburgh Mirrors are available made from regular polished plate glass. Also, for the achievement of original effects, Pittsburgh Mirrors may be made from Flesh Tinted, Blue, Crystalex or Solex Plate Glass, and fabricated as silver, gold or gunmetal mirrors.

Physical Characteristics

QUALITIES	THICKNESSES	MAX. SIZES	WEIGHTS
Silvering Mirror Glazing Glazing	Fabricated from any thickness of glass	Plain and Structural—Up to maximum glass size Copper-Backed 70x144	Approximately same as plate glass

STRENGTH	COLORS	FINISH
Approximately same as plate glass	Plain, Blue, Flesh, Water White, Blue-Green	Silver, gold or gunmetal backing on any color glass

TAPESTRY GLASS

A Translucent, Semi-Opaque Glass

Tapestry Glass is a product ideally suited for use where the architect desires to glaze in such a way as to admit the light but obstruct the view. For this glass, while transmitting and diffusing the maximum amount of light, is able, because of its peculiar surface texture, to obscure vision.

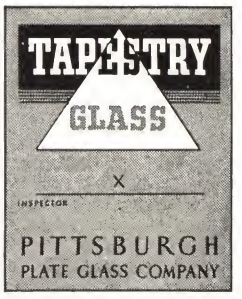
The glass is really a unique combination of transparency and opacity. Objects placed quite close to the surface of the glass can be seen through it almost as plainly as through transparent glass. But objects decrease in visibility and eventually become entirely shadowed and obscured when they are removed from close proximity to the glass.

Attractive in Appearance

Tapestry Glass is unusually attractive in appearance, too. Its silvery, rich-looking surface, glinting and sparkling in a curiously live fashion when light touches it, creates an effect as pleasing as it is distinctive.

Decorative Possibilities

And since Tapestry Glass can be strikingly decorated by sand-blasting, chipping or mitering upon its surface, the architect will find it a remarkably helpful medium in executing decorative plans.



Finish

It is furnished with both surfaces in Tapestry finish or one in Tapestry finish and the other polished.

Physical Characteristics

QUALITIES	THICKNESSES	MAX. SIZES	WEIGHTS
Glazing	3/16" 1/4"	60x144	3/16" 2.87 lbs. [ ] 1/4" 3.68 lbs. [ ]

STRENGTH	COLORS	FINISH
Equal to or greater than that of regular plate glass	Translucent Semi-Opaque	Plain 3/16" and 1/4" Polished 1/4" only

For list of warehouses and map showing warehouses and factories see back cover

PENNVERNON WINDOW GLASS

A Quality Sheet Glass for General Glazing Purposes

Pennvernon Window Glass represents an extraordinarily high development in sheet glass making. This glass is manufactured by a special process, in which it is drawn vertically and held absolutely flat from molten metal to finished sheet. During the drawing process, no rolls or foreign substances of any kind touch the surface of the glass until it has cooled sufficiently to be beyond injury. Consequently, Pennvernon has an unusually brilliant, reflective and unmarred surface finish on both sides of the sheet.

Advantages

Other superior qualities distinguish this fine window glass, too. Because it is made only from the purest and most carefully selected ingredients, it is remarkably transparent and retains its clarity indefinitely.

Pennvernon's durability also recommends it. Because the texture of its surfaces is so smooth, wear and abrasion affect it less than ordinary window glass, and its beauty and utility last longer.

Because of these qualities, architects everywhere find Pennvernon Window Glass the most satisfactory sheet glass to specify.

Qualities

Pennvernon is graded at the factory by experts, in accordance with U. S. Government standards, and a label indicating quality is affixed to each light, as follows:

AA—This is the best quality of window glass obtainable. Because Pennvernon "AA" is higher in quality than is commercially necessary, it is made only on special order and priced accordingly.

A—The highest grade of window glass for special commercial uses. Contains no imperfections that can perceptibly interfere with straight vision.

B—Window Glass free from noticeable defects, but containing imperfections which prohibit its being graded as "A" quality.

Greenhouse—A special quality selected to eliminate defects injurious to growing plants. Available in sizes 16x18 in., 16x24 in. and 18x28 in. only.

Picture Glass—Pennvernon Picture or 16-oz. Glass is a very thin glass, especially made and graded for picture framing.

Heavy Sheet Glass—Available in thicknesses of $\frac{3}{16}$ in. and $\frac{7}{32}$ in., and in Select or Factory Run Qualities. Select Quality of Pennvernon Heavy Sheet Glass approximates "A" Quality in single and double strength Pennvernon; Factory Run Quality approximates regular "B" Quality.

Packing

Pennvernon Window Glass is packed with a sheet of special type separator paper between each light to prevent scratching, marring or staining. Lights are then placed in a specially constructed corrugated carton, which is safe and convenient to handle, and which is lined with asphalt paper to protect glass against moisture. This carton is inserted for shipment in a sturdy, lightweight wood crate, upon which the Pennvernon trademark always appears for easy identification.

Physical Characteristics

QUALITIES	THICKNESSES	MAX. SIZES	WEIGHTS	STRENGTH	COLORS	FINISH
AA-A-B Greenhouse Picture Heavy Sheet	Single Strength .087 - .095 Double Strength .118 - .133 Heavy Sheet $\frac{3}{16}$" - .187 to .200 $\frac{7}{32}$" - .212 to .225	Heavy Sheet $\frac{3}{16}$" up to 50 [ ] $\frac{7}{32}$" up to 60 [ ]	Picture 16 oz. [ ] S.S. 19 oz. [ ] D.S. 26 oz. [ ] $\frac{3}{16}$" 40 oz. [ ] $\frac{7}{32}$" 45 oz. [ ]	Same as plate glass of equal thickness	Clear	Fire-finished

For complete Architectural Specifications see page Three

Distributing and Manufacturing Facilities of the

Paint • PITTSBURGH • Glass
PLATE GLASS COMPANY

AKRON, Ohio
674 Carroll St.
ALBANY, N. Y.
47 N. Ferry St.
ALLENTOWN, Pa.
827 N. 12th St.
AMARILLO, Texas
720 E. 13th St.
ATLANTA, Ga.
172 Marietta St., N. W.
BALTIMORE, Md.
8 S. Paca St.
BIRMINGHAM, Ala.
912 N. 20th St.
BOSTON, Mass.
300 Babcock St.
BRONX, N. Y.
441 Exterior St.
BROOKLYN, N. Y.
Jay, Water & Plymouth Sts.
BUFFALO, N. Y.
101 Seneca St.
BUTTE, Mont.
840 Utah Ave.
CHARLOTTE, N. C.
201 E. Sixth St.
CHICAGO, Ill.
451 St. Clair St.
CINCINNATI, Ohio
Broadway, Court & Eggleston Aves.

CLEVELAND, Ohio
3849 Hamilton Ave.
COLUMBUS, Ohio
324 E. Second Ave.
DALLAS, Texas
Santa Fe Terminal Bldg.
DAVENPORT, Iowa
414 Scott St.
DENVER, Colo.
2519 Walnut St.
DES MOINES, Iowa
108 E. Fourth St.
DETROIT, Mich.
6045 Hamilton Ave.
EL PASO, Texas
1106 E. Overland St.
FORT WORTH, Texas
1825 Main St.
GRAND RAPIDS, Mich.
21 Ionia Ave., S. W.
HARRISBURG, Pa.
611 S. 17th St.
HARTFORD, Conn.
40 Chapel St.
HIGH POINT, N. C.
1 S. Hamilton St.
HOUSTON, Texas
101 Crawford St.
INDIANAPOLIS, Ind.
59 S. State Ave.

JACKSONVILLE, Fla.
601 N. Myrtle Ave.
KANSAS CITY, Mo.
125 W. Fifth St.
KNOXVILLE, Tenn.
207 Humes St.
LITTLE ROCK, Ark.
112 N. Scott St.
LOS ANGELES, Calif.*
Box S, Florence Branch
LOUISVILLE, Ky.
1601 W. Main St.
MEMPHIS, Tenn.
435 Madison Ave.
MIAMI, Fla.
1200 Biscayne Blvd.
MILWAUKEE, Wis.
820 N. Market St.
MINEOLA, N. Y.
49 Windsor Ave.
MINNEAPOLIS, Minn.
616 South Third St.
MT. VERNON, N. Y.
556 S. Fulton Ave.
NASHVILLE, Tenn.
1102 Grundy St.
NEWARK, N. J.
290 Elizabeth Ave.
NEW HAVEN, Conn.
26 Mill St.

NEW ORLEANS, La.
1500 Poydras St.
OAKLAND, Calif.*
1125 Castro St.
OKLAHOMA CITY, Okla.
101 E. California Ave.
OMAHA, Nebra.
1402 Jones St.
PEORIA, Ill.
915 S. Washington St.
PHILADELPHIA, Pa.
3034 N. 16th St.
PITTSBURGH, Pa.
632 Duquesne Way
RICHMOND, Va.
302 Seventh St., S.
PORTLAND, Ore.*
1235 N. W. 15th Ave.
ROANOKE, Va.
14 Pleasant Ave., S. E.
ROCHESTER, N. Y.
362 Exchange St.
SAGINAW, Mich.
103 Fitzhugh St.
ST. LOUIS, Mo.
3900 Chouteau Ave.
ST. PAUL, Minn.
459 Jackson St.
SAN ANTONIO, Tex.
1420 S. Alamo St.
SAN FRANCISCO, Calif.*
1230 Market St.

SAVANNAH, Ga.
Central of Georgia Terminals
SCRANTON, Pa.
823 Wyoming Ave.
SEATTLE, Wash.*
316 Westlake Ave., N.
SHREVEPORT, La.
90 Fannin St.
SOUTH BEND, Ind.
1138 S. Lafayette St.
SPRINGFIELD, Mass.
40 Albany St.
SYRACUSE, N. Y.
838 Erie Blvd., W.
TAMPA, Fla.
102 Madison St.
TOLEDO, Ohio
2410 Albion St.
TULSA, Okla.
301 E. Archer St.
UTICA, N. Y.
615 Eagle St.
WASHINGTON, D. C.
4th & Channing Sts., N. E.
WILKES-BARRE, Pa.
54 Scott St.
YOUNGSTOWN, Ohio
25 N. Watt St.

*Carrying Pittsburgh Paint Products only

W. P. FULLER & CO., Distributors of glass products of the Pittsburgh Plate Glass Co., have convenient warehouses located in the following cities, with additional store and dealer accounts throughout the Northwest:

Phoenix, Arizona
Tucson, Arizona
Salt Lake City, Utah
Oakland, Calif.
Seattle, Washington
Tacoma, Washington
Spokane, Washington
Sacramento, Calif.
Missoula, Montana
Butte, Montana
Portland, Oregon
Fresno, Calif.
Los Angeles, Calif.
Santa Barbara, Calif.
San Diego, Calif.
San Francisco, Calif.
Walla Walla, Washington
Yakima, Washington

MAP BELOW INDICATED ★ WAREHOUSES ● FACTORIES